

WHAT IS CLAIMED IS:

1. A method for conditioning comminuted tobacco material by heating and moistening with water vapor, wherein:

5    a) said comminuted tobacco material free-falls down through a chamber operating in a continuous process; and

     b) is treated during said free-fall with water vapor via nozzles, wherein

     c) a hyperbaric pressure is maintained in said chamber.

10    2. The method as set forth in claim 1, wherein an absolute pressure of more than 1 bar is maintained in said chamber.

15    3. The method as set forth in claim 1, wherein an absolute pressure of 2 to 10 bars is maintained in said chamber.

20    4. The method as set forth in claim 1, wherein saturated vapor is introduced into said chamber through nozzles.

25    5. The method as set forth in claim 1, wherein saturated vapor or superheated vapor with a temperature in the range 100°C to 200°C is introduced into said chamber.

30    6. A device for conditioning comminuted tobacco material by heating and moistening with water vapor, comprising:

     a) a chamber in which said comminuted tobacco material free-falls downwards;

     b) a cellular wheel sluice at each of the upper inlet and the lower outlet of said chamber; and

     c) nozzles for treating said free-falling, comminuted tobacco material with water vapor; wherein:

     d) both cellular wheel sluices are formed as pressure differential proof sluices,

     e) such that a hyperbaric pressure of more than 1 bar is maintained in said chamber.

35    7. The device as set forth in claim 6, wherein said nozzles are formed as ring nozzles.

8. The device as set forth in claim 7, wherein said ring nozzles are arranged flush with the inner surface of said chamber.
- 5 9. The device as set forth in claim 6, wherein the discharge direction of said nozzles is inclined downwards.
10. The device as set forth in claim 6, wherein said discharge direction of said nozzles, seen in a horizontal plane, extends at an angle of about 90° to the circumferential direction of said chamber.
11. The device as set forth in claim 6, wherein said chamber is provided with a heating jacket.
12. The device as set forth in claim 11, wherein said heating jacket is heated using vapor.
- 15 13. The device as set forth in claim 6, wherein said chamber expands in an approximately tapered manner downwardly.
- 20 14. The device as set forth in claim 6, wherein said lower cellular wheel sluice, formed as a discharge sluice, has a slightly higher conveying volume than said upper cellular wheel sluice, formed as a feed sluice.
- 25 15. The device as set forth in claim 6, wherein an airflow dryer is connected to said lower cellular wheel sluice.

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